Switch Shoutout TODO

# **High Priority**

## Must be completed for beta

* Find the minimum iOS version
* Update contact email in registration error

# **Medium Priority**

## Should be addressed before production, but not a major issue - Can address after beta release

* \*Add alphabet letters to all games list
* \*Remove beacon from friend’s bacon table if the user removes the friend – beacon disappears on next app open
* \*\*Add functionality to make beacons only appear if user has the game added to my games
* \*Create functionality to create in-app notifications from firebase
* Implement consent notification
  + Per https://documentation.onesignal.com/docs/ios-native-sdk#section--setrequiresuserprivacyconsent-
* \*\*Add a toggle to turn notifications off for a specific game or friend
  + Friend:
    - Add a no\_notifications key under friend’s user key and add firebase ids
* \*Add action buttons for beacons and friend requests
  + Beacon buttons should reflect a response (I want to join) – Need to see if this is possible
  + Friend request buttons should allow the user to accept or delete
* \*Only have the requests button (incoming friend requests) appear when there is a request
* \*\*Figure out how to update player\_id for a friend when they change devices/get a new player\_id
* \*Only import necessary firebase libraries
* \*Declare global variables in utils.swift (current user properties, userDefaults, etc.)
* ?Fix bug where if a game is removed from firebase, it isn’t removed from a user’s game list in firebase (current code needs testing)
* \*Fix bug where Add button when adding friend takes a long time to change to “added” if attempting to find a friend to add on a slow connection
  + Just don’t enable button until the determined text shows up, or show alternate “loading…” text and change it when necessary
* \*\*\*Add the option to delete your account
* \*\*\*Add the option to change your email
* \*\*\*Add the option to change your password
* \*\*\*Implement a length limit on nickname
* \*Add some kind of notification or user interaction to the Redownloading Games option
  + iPhone X and above don’t have the little network activity indicator
* \*\*Add if let blocks/guard statements to all user defaults, firebase, and optional calls
* \*Fix a bug where friends’ beacons are duplicated when loading HomeViewController for the first time
  + Replicate by opening app with no internet connection

# **Low Priority**

## Optional tasks that may improve the overall experience

* Look into Google Cloud Functions to add/remove beacons to friends beacon lists
* Add check to see if user exited out of registration and didn’t set friend code and username
* Change Settings rows to look like iPhone Settings > General > About (Phone Name)
* Change Settings tableview section header to lowercase
* Fix a bug where if a game gets removed from firebase and the user has it as a beacon -> the beacon is visibly removed from the UI (should happen before UI is loaded)
* Add messaging service (Not going to implement)
  + Get chat working without notifications (<https://www.raywenderlich.com/140836/firebase-tutorial-real-time-chat-2>)
    - Code Conversations view
      * Fix bugs:
        + Message sent time always displays current time
        + ~~ConversationsTableView isn’t updating until app is restarted~~
      * Need to test:
        + ~~Viewing multiple user perspectives at the same time~~
        + Loading previous archived messages (>50)
  + Fix bug where friend list isn’t always populated (ChooseAFriendViewController)
  + Only remove conversation from all related tables if all members have left the conversation
  + Utilize User Defaults to lessen firebase calls for chat code – pass User objects instead of multiple individual properties
    - Make ContactList in user defaults to store users who you are in conversations with but not friends with
    - Make MembersList for convo members
      * Array of Dictionary<String, [User]>
    - ~~Make ConversationsList for conversation details~~
      * ~~Array of Conversation objects~~
    - Make MessagesList for messages (do without this for now – could use CoreData later on if necessary)

# Completed

* Add an alert blocking the user from adding a beacon if the user has no games added to My Games
* Make save button on ChangeFriendCodeViewController enabled only when enough characters have been entered
* Remove a user’s game from Firebase if they delete it from My Games
* Prevent the text in the error label in ChangeFriendCodeViewController from being cut off
* Update the My Games list for the current logged in user
* Remove the beacon if the game is removed from My Games
* Fix a bug where the beacon gets deleted when saving updated friend code
* When a beacon is removed due to a game being deleted from Firebase or removed from My Games, update the label and hide the remove button on HomeViewController
* Handle situation where a beacon for the deleted game was active when the game was removed from firebase
* If a game is removed from Firebase, remove it from My Games
* Use two different trees for friends and friend requests in Firebase
* Disable add/confirm button for friend requests after it has been pushed
* Disable add button for friend requests that have already been sent
* Don’t display a user as a search result if they are already a friend
* Add error handling for no internet connection on startup (Reachability pod)
  + Remove navigation bar from ReachabilityViewController (viewWillAppear)
* Use bar button items for back button on navigation for various views to pretty up UI
* Sort games in ChooseAGameTableViewController on load
* Fix a bug where closing the app on My Games after updating My Games doesn’t save changes
* Stylize Friend cell to match game cell background color and font color
* Research bug: If phone loses internet connection right after hitting Redownload Games, error view controller doesn’t appear and navigating to home screen causes softlock with SVProgressHUD. Reopening the app leads to a crash
* Use autolayout to make the app look good on all devices
* Fix autolayout for iphone se registration view controllers
* Fix bug where registration2 text fields don’t appear
* Fix a bug where re-enabling internet quickly after disabling it after redownloading games causes a crash
* Fix bug where quickly scrolling in ChooseAGameViewController reuses selected cells
* Add UITableView for friends’ beacons on home screen
* Add functionality to clear AllGamesList cache and redownload games/images
* Fix SVProgressHUD not showing long enough when going from Friends or Settings back to Home
* Make longer text box background images for addfriendsviewcontroller
* Add view overlay to disable home view interaction until loading is complete
* Use DZNEmptyDataSet pod for empty tableview screens
  + For AddGamedTableViewController, have it say “Downloading games…”
* MAIN: Add friends to FriendsTableViewController
  + Figure out why friend list isn’t updated after accepting friend request
  + Add functionality to remove friends from friend list
* Fix blank/white cursor when changing nickname or friend code
* Change the text for the alert when someone tries to create a beacon with no added games
* Add better error messages to login and registration screen
* Fix timing of SVProgressHUD on Home screen first load with a bad network connection
* Find a way to shorten/hash conversation IDs (swift hash doesn’t hold same value over multiple executions) (May not be necessary with FCM) – childByAutoId()
* Updating chat window and conversations view in real time
* Add small image to conversationtableviewcell to designate a new unread message
* Send messages to firebase
* Messages intentionally randomly fail
* Messages intentionally appear in random order
* Conversations appear in random order
  + Should be ordered by last message date/time
* Can create multiple conversations with same members
* Code date/time field
* Conversations don’t load if someone else has created a new conversation with you but hasn’t sent anything yet
* Denormalize data structure to create more efficient data usage
  + Per <https://firebase.google.com/docs/database/ios/structure-data>
* Change the security rules in Firebase
* Chat messages show bubble tails and avatars as if simulating a 2 person conversation even when there are more than 2 people in the conversation (ChatItemsDecorator)
* Fix bug: SVProgressHUD disappears before beacon genre icons load
* Add avatar support in messages
  + Add avatar customization to settings page and registration page
  + ~~Create avatar stack view for selecting avatar~~ (went with manual layout)
  + ~~Create menu that pops up from bottom of screen asking to choose from built-in avatars or choose photo~~  (decided against user provided images)
* Change calls that pull all users to queries
  + Line 52 of FriendsTableViewController.swift
  + Line 205 of HomeViewController.swift
* Add ability to delete friend requests
* Fix crash when reloading games
* Fix friend beacons not showing when logging out and logging back in
* Look into why the console messages for beacon removed duplicate themselves when having a friend remove a beacon after you have redownloaded games
  + Could use protocol <- yup def totes
* Rework adding friends to not load all users and use a query instead
* Fix bug where empty friend table doesn’t display first new friend after accepting
* Fix bug where the app crashed when attempting to load a friend beacon for a game that hasn’t been downloaded yet
  + IDEA: if this occurs, add the game to the friend’s AllGamesList
* Fix bug where beacon is not removed from user, friends, or user defaults if it is removed from firebase
* Determine whether or not image storage should be used for game genre images (probably not; can just be stored on local device and would reduce data usage)
* Revisit grabbing friends in HomeViewController.viewWillAppear()
  + Put this in ViewDidLoad()
* Fix bug where new games get downloaded after searching for friend beacons, so the images don’t load until after the games download
* Add a search bar to the Add Games View Controller
* Add observers for friend beacons and friend requests
  + Add a “read” state for each friend request to track if it has been viewed
    - Otherwise, the friend badge resets if the app is closed and reopened
    - Could add this to the observer to only observe friend requests that have a specific read value
* Don’t show DZNEmptyDataSet while table views are loading
* Add dznemptydataset alternate text for empty search in all games
* Adjust home view controller beacon label text to fit correctly
* Add “Next” keyboard functionality to login/register textfields
* Get developer account
* Add push notifications for ~~beacons~~ and ~~friend requests~~ with OneSignal
* Fix bug where homeviewcontroller isn’t finishing loading and friend beacon image isn’t loading
* Fix a bug where game text cuts off in all games list and my games list if the title is too long
* Add text notifying the user that new games are being downloaded